

Development occurs through this process of progressively more complex exchange between a child and somebody else

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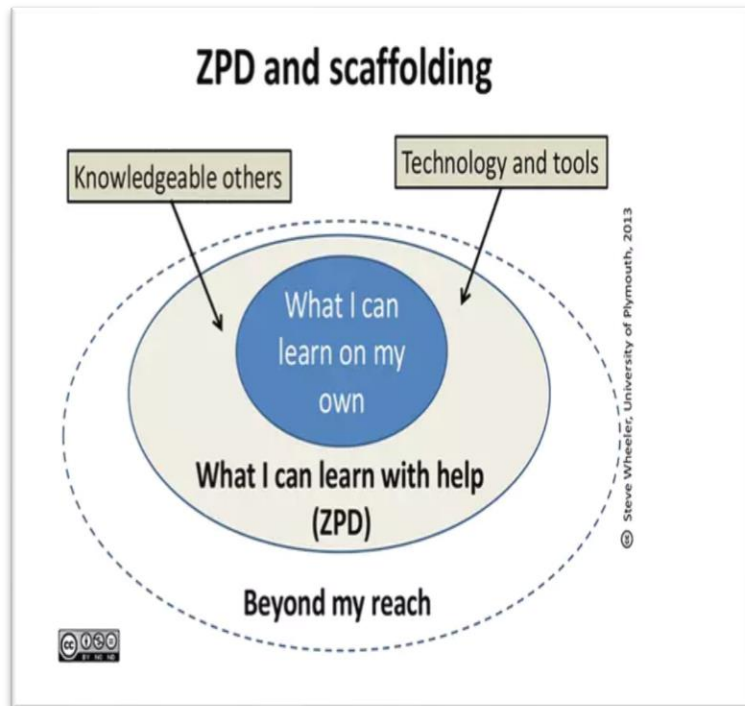
Introduction

The title for this assignment outlines development as a gradual process including a second person and the opportunity for advancing ideas. This response looks at the progressive exchange using three interactions; between a learner and the teacher, a learner and education support staff and a learner and their peers. This is achieved with critical reference to historical and contemporary educational theory and a focus on the nature and quality of these interactions. By comparing my findings to the literature, I am able to reflect on these approaches and determine meaningful ways to develop and improve my teaching.

Social constructivism

In pedagogical terms, a progressively more complex exchange that enhances learning refers to social constructivism (McLeod, 2019). Arguably, one of most influential learning theories of the last century, social constructivism was established by Vygotsky in the 1930s. It emphasises the importance of interaction with others such as peers, teachers, and parents in order to build knowledge. Vygotsky's most notable theory concerns the Zone of Proximal Development (ZPD), a model developed to show the difference between what a learner can do without help and what they can do with help (McLeod, 2019). Vygotsky defined ZPD as "the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86).

The figure below illustrates the ZPD learning model, where children and young learners achieve progressively more complex exchange by working with peers or skilled partners, than working alone.



McLeod, S. (2018). ZPD Learning Model. Available at:

<https://www.simplypsychology.org/vygotsky.html> [Accessed 27 March 2020]

In today's terms, the model represents the foundation for 'scaffolding' in the classroom. According to Stojkovic (2017), scaffolding can be defined as "a variety of instructional techniques used to move students progressively toward stronger understanding and, ultimately, greater independence in the learning process" (Stojkovic, 2017. p 170). Scaffolding links teaching with the ZPD by transferring the responsibility for the task to the student (Wells, 1999). This is supported by Vygotsky who stated that "by giving our students practice in talking with others, we give them frames for thinking on their own" (Vygotsky, 1980, p 16). Vygotsky's theory also highlighted the use of language in childhood cognitive development. The use of speech in a classroom can support the engagement of learners with their peers. Likewise, it helps in creating a genuine collaborative atmosphere, and fosters an interesting learning environment.

The implementation of scaffolding and social interaction strategies can be used to achieve independent exploration as it includes modelling a skill, providing suggestions or feedback, and adapting material or activity (Copple & Bredekamp, 2009). Scaffolding may also be used to bridge learning gaps, such as narrowing the gap between what students have learned and what they are expected to know and being able to do at some point of their learning. Offering scaffolding in a collaborative setting is expected to reduce negative feelings and self-perceptions that students may feel when they are disappointed, frustrated, or discouraged by undertaking a difficult task without the encouragement, direction, or feedback they need to complete. Wells (1999) also highlighted this collaboration between the teacher and the learner in constructing knowledge and skill.

This scaffolding is also recommended by Rosenshine, who set six Principles of Instruction that are used today. The strategy has many forms, including supporting learners by dividing a lesson into chunks, showing models of good practice, allowing learners to think loudly, promoting class discussion, and encouraging teamwork (Renshine, 2012, p. 18). In addition, scaffolding strategies can be used to support social skills and well-being. The approach seeks to minimise negative emotions and low confidence that some learners may experience when struggling to do a task without guidance or clear instructions.

In a constructivist learning, the environment underpins a variety of student-centred teaching methods and techniques which allows learners to construct meaning through the use of relevant activities and discussions and become managers of their own learning (Scott and Hannafin, 2000).

Piaget was another eminent voice in child development theory, believing that children move through four different stages of mental development which is known as cognitive development. Unlike Vygotsky, Piaget studied his own children and did not consider the role of the social setting in a child's development. Because of this, Vygotsky argued that Piaget's results were flawed, highlighting instead that "learning is a necessary and universal aspect of the process of developing culturally organised, specifically human psychological function" (Vygotsky, 1978, p. 90).

Since 2014 the Welsh school curriculum has been under its own developmental process. The Welsh Government put the quality of teaching at the top of its agenda 'The Professional standards for teaching and leadership' emphasises the importance of effective communication with students. This is strongly emphasised in the socio-cultural theory of education, introduced by Vygotsky (1978) and further developed in modern research. Wells (1999) and Daniels (2001), also highlighted the value of effective communication between the teachers and the students in accelerating learner progress and the co-constructive process.

Dewey's theory of education and highlighted the importance of human beings learning progressively through a 'hands-on' approach (Fishman and McCarthy, 1998). This theory places Dewey as a pragmatist with regards to Dewey in the educational philosophy of pragmatism. Dewey theory rejects the idea that schools should focus on repetitive and rote memorisation. Rather, learners should progress by engaging with real-world, practical workshops in which they would demonstrate their knowledge through creativity and collaboration. Dewey also agreed that schools should have opportunities for learners to reflect and talk about activities. (Williams, 2017).

Dewey's contribution brought significant changes to the education system and many approaches of progressive education about the state of education today, and his theories are still relevant and important in today's classrooms. As illustrated by the Welsh curricular changes; a main focus of the new curriculum is in encouraging students to learn, participate actively and develop personal interest in the classroom lessons.

One of the most effective approaches in a constructivist classroom is the support the learners receive in developing problem-solving skills (Oliver, 2000). This implementation of problem solving is a cognitive tool in the classroom. The implementation of this approach can aid learners in the asking of questions, discussion of topics, and can also equip learners with problem solving skills. Collaborative work with peers on a discussion topic, can also help learners develop thinking skills and the ability to draw conclusions. (Tam, 2000). This is in agreement with Vygotsky who states that "by giving our students practice in talking with others, we give them frames for thinking on their own" (Vygotsky 1978, p. 84). This independent thinking can be seen as a marker for progressively more complex exchange.

Social constructivism has shown itself to be a highly effective model for classroom teaching, as well as learning in the wider sense. However, there are some important limits to the theory. Firstly, they rely heavily on accurate baseline assessments; constructivist learning strategies need to be adapted to the student's level of development (Dager, V., & Yadvya, A., (2016). This makes the system suited to certain categories of students, but not others. Students with Speech and Language or special social learning needs may not benefit equally. It is also difficult for the teacher to evaluate and analyse whether or not the student has managed to reach the correct conclusion. (National Research Council, 2001).

The ZPD is best considered as a strong starting point for constructivism. Vygotsky himself was not able to complete his work and it lacks clear detail (Verenikina, 2003, p. 2). According to Miller (2011), individuals may have broad or narrow zones, which can be both important and unnecessary, depending on the context of the person. Miller continued to define the width of the zone, saying that it "does not provide an accurate picture of the learner's learning, skill, style of learning, and current level of development relative to other children of the same age and degree of motivation" (Miller, 2011, p. 198). With this in mind, further research into application of ZPD in learning is necessary to achieve best research outcome and practice.

Reflection

This section reflects on my teaching experience in relation to social learning and interaction. The reflection will include three main scenarios; teacher – learner; Teaching assistant – learner; and paired work (learner to learner). I chose to consider my work using Gibbs' model of reflection (Gibbs, 1988) distinguishes the emotions of the teacher from the perception of a real situation and was thus ideally suited to my teaching and reflection.

During my placement school I taught classes with three different attainment levels; a top set class, a mixed ability class, and a lower set class. The lower set class also had students with additional learning needs.

Teacher to learner

My first area of focus was effective use of questioning. Questioning is an excellent tool in helping the learners to develop from 'where they are' to 'where they need to be'. I find that questioning is particularly versatile because it provides both *Assessment for Learning* (AfL) data and scaffolding for learners. In order to improve engagement, I linked my questions to relevant topics of interest (Chin & Osborne, 2008) for example football, celebrities, Fortnite. I found using my questioning to provide scaffolding useful as it enables me to establish the ZPD in real time and adapt further questioning according to this (Vygotsky, 1987; Hattie, 1992).

For example, to start the topic of percentages, I asked the students where percentages are usually used, and where the percentage sign is found. Many students gave answers about percentages being found on phones, in sales at shops, or in ingredients. We then discussed how 50% means a half, and how 25% means a quarter, and so on. This strategy helps the learners to think about the topic and link it to real life examples (Blosser, 2000), rather than me delivering the lesson to a classroom which receives it passively. It also supports the learner's responsibility towards learning by making them more involved in the learning process.

Likewise, I used questioning as a strategy for the *Assessment for Learning*, to clarify and summarise the lessons. The Welsh Assembly Government also emphasizes the inclusive nature of questioning, as dialogue, in that it should "...evoke thoughtful reflection in which all pupils can be encouraged to take part" (Welsh Assembly Government, 2010, p. 25). I tried to use my questioning in this way, understanding that a different phrasing or approach could appeal to a combination of learners in terms of attainment. The other advantage of this class dialogue is that the input is collaborative. Students no longer need to acquire their learning from the teacher as an 'instructor' (Scott and Hannafin, 2000; Kitsantas (2013) and Younis (2018). A great focus is now put on the active role of the learner, which is vital for the lifelong development of knowledge and skills. (NSWIT 2006, pg3). Often when asking these questions, I found that other class members made astute and interesting observations about the topic themselves. I found that encouraging peer learning was a useful tool in giving the students a greater sense of agency.

Support staff and pupils

The second area key where I was able to reflect on this process of progressively more complex exchange was between the Teaching Assistants and pupils. I was also able to compare my observations at the mainstream school with the department for additional learning needs (ALN) students. Here, support workers played a crucial formative role in accelerating class progress. The strategies employed included, building and maintaining an effective conversation to put learners on task, focused assessment of learners' understanding of a topic, and providing clear and adaptive scaffolding, rather than making work less challenging. For me, this was an example of social constructivism at its most effective. TA's had an in-depth knowledge of pupils, both in terms of their personalities and their learning needs and this understanding allowed them to tailor their approach appropriately. This is confirmed by Dr. Kevan Collins, Chief Executive Officer of the Education Endowment Foundation, who said that "teaching assistants play such an important role in schools, particularly in helping some of our most vulnerable pupils, that they deserve the best possible guidance." (EEF, 2015).

Peer learning

Peer learning is recognised by educators as a uniquely effective tool from promoting progressively more complex exchange (Hammond, 2019). However, unlike the teacher to learner and TA to learner examples previously discussed, this exchange may not immediately lead to greater complexity. I found that peer learning worked best where ideas and objectives remained focussed by planning and coordination. I adopted two main techniques for this; 'think-pair-share' and 'two before me'. As well as developing learning, I found these techniques to be effective in developing confidence, and a more positive and collaborative atmosphere.

Next Steps

Having reflected on social constructivism, in theory and practice I have arrived at future targets and actionable next steps for my classroom. I will address the three areas of learning interaction in turn.

Teacher to learner

Focused and considered use of questioning was demonstrably a useful tool for learning; helping to bridge the ZPD (Vygotsky) and improve AfL. One constraint of this technique is time, I found it challenging to ask questions tailored to each student during lesson time. However, due to recent events I have undergone substantial training in use of computing and ICT. While such skills are essential at this time, I have also been able to appreciate their wider uses in the classroom. Improving digital competence is also a central goal for the new Welsh curriculum (Donaldson, 2015). Greater use of ICT through student response systems for example Kahoot and Quizizz will allow me to tailor questions 'at scale' for individuals and groups of learners. For future references, I would like to experience more of the use of student response systems within class in order to collect feedback from the students. This will be helpful in topics such as collecting data and the use of questionnaire.

The accessible nature of these systems provides more immediate whole-class feedback and helps me assess learning (Sarah, 2019). It will also help students to understand the areas that they need to revise and gauge their progress, increasing the level of class engagement and collaboration (Fraillon et al, 2014)

A thematic review carried out by Estyn in July 2018 to examine the approaches used by schools to plan for the introduction of the DCF found that high quality professional learning is a key to the success of implementing the DCF, for example, if staff are well aided and professional learning activities permit them to meet their own learning needs and those of students.

Other educational research has shown that when technology is used in lessons, both teachers and students find class more adaptable (U.S Department of Education, 2017). They were more prepared to try a new curriculum, and that collaboration increased.

Support Staff and learners

My main takeaway from this reflection was that TA's can be invaluable to pupil learning, providing both scaffolding in their roles and an additional means to challenge pupils (Rosenshine, 2012). My compared observations also taught me that, with an in-depth understanding of pupils' needs and targets, support staff are more empowered to support the class (EEF, 2015). In my next role, I would like to use an even more proactive approach to working with the teaching assistant. This will involve consistent communication about each learner's needs as well as lesson requirements.

Peer learning

I would like to continue to plan peer-learning opportunities into my lesson. My own experience has found that they are a valuable way to develop a progressive and inclusive atmosphere (Dewey, 1998), especially in supporting students who may otherwise lack confidence to voice their ideas. In terms of next steps, I would again like to further improve use of technology in my lessons. Whereas the peer learning I have used so far is rooted in discussion and presentation projects in the classroom, using digital learning tools such as Google Classroom offer the opportunity to work and collaborate with peers, design their own task outcomes, and encourage constructive communication. I would like to investigate other resources that allow online collaboration and that integrate student response.

Conclusion

In summary, this paper explores social constructivist theories to critically examine their role in learning and development. A review of the literature shows that these theories remain relevant today, especially as the field has evolved with education. However, some challenges remain in terms of understanding the resulting attainment and ever-increasing demands for time. Having critiqued these theories, I consider my own observations and experiences, highlighting three main areas where I feel social constructivist theory was most relevant. By using Gibbs reflective model, I was able to analyse these findings in a structured way and draw conclusions, with specific action plans for each. Overall, my learning from the literature and my school placement shows that development does require a process of progressively more complex exchange and that this can take many forms, including exchange between learner and teacher, TA or a peer. I look forward to improving student outcomes by adapting and improving this system in the future, making use of ICT, digital competencies and collaborating with other staff.

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